

Attached hereto is a marked-up version of the changes made to the claims by the current amendment. The attached page is captioned "Version With Markings To Show Changes Made."

### **The Objection**

Claim 7 stands objected to as being dependent upon a rejected base claim. The Office Action states that Claim 7 "would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The prior art does not suggest or teach the instant pesticidal composition comprising being used in a method comprising applying the composition to stored products to control beetles." Accordingly, Applicants have rewritten Claim 7 in independent form and reconsideration and withdrawal of the objection is respectfully requested.

### **The Rejections Under 35 U.S.C. §102(b)**

Claims 1-6 stand rejected under 35 U.S.C. §102(b) as assertedly being anticipated by JP 07087845; 4/4/95. In addition, Claims 1, 3, 4, and 6 are rejected under 35 U.S.C. §102(b) as allegedly being anticipated by JP 71034993; 8/14/68. In view of Applicants canceling Claims 1 through 6 without prejudice to, and disclaimer of, the subject matter they contain, this rejection is rendered moot. Withdrawal and reconsideration of these rejections are respectfully requested.

### **Other Matters**

The Office Action requests the insertion of a comma (---,---) after "(cineole)" in Claims 3 and 6, line 6. In view that Claims 3 and 6 have been canceled without prejudice to, or disclaimer

of, the subject matter they contain, this objection is rendered moot. Withdrawal and reconsideration of these rejections are respectfully requested.

**CONCLUSION**

Early consideration and prompt allowance of the pending claims are respectfully requested. If anything could be done to place this application in condition for allowance, e.g., by Examiner's Amendment, Applicants respectfully request that the Examiner contact the undersigned representative at the telephone number listed below.

To the extent necessary, please grant any extension of time deemed necessary for entry of this communication. Please charge any deficient fees, or credit any overpayment of fees, to Deposit Account 500417.

Respectfully submitted,  
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**DATE: October 4, 2001**

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IN THE SPECIFICATION

--- Various plant essential oils and blends thereof were tested for fumigant toxicity against maize weevil (*Sitophilus zeamais*) adults. The materials tested included 4-Blend (2-phenyl ethyl alcohol, 2-phenyl ethyl propionate, benzyl alcohol, and  $\alpha$ -terpineol), benzyl alcohol, 2-phenyl ethyl alcohol, 2-phenyl ethyl propionate, trans-anethole, eugenol, 5-Blend (thymol, trans-anethole, eugenol,  $\alpha$ -terpineol, and citronellal),  $\alpha$ -terpineol, thymol, and V-3052 (eugenol,  $\alpha$ -terpineol and cinnamic alcohol). To determine the fumigant action against stored grain insect pests, each of the test oils was fogged into a container in which adult maize weevils were present. The oils were applied at 200ug/cc, and maize weevil mortality was observed at 48 hours. The results are shown below.

48-hour mortality (%) at 200ug/cc

4-Blend	93%
Benzyl alcohol	93%
2-phenyl ethyl alcohol	93%
2-phenyl ethyl propionate	73%
Trans-anethole	53%
Eugenol	47%
5-Blend	40%
$\alpha$ -terpineol	20%
Thymol	13%
V-3052	7% ---

---Various plant essential oils and blends thereof were screened for contact toxicity against maize weevil (*Sitophilus zeamais*) adults in corn, sawtoothed grain beetle (*Oryzaephilus*

*surinamensis*) adults in oats, red flour beetle (*Tribolium castaneum*) adults in oats, and drugstore beetle (*Stegobium paniceum*) last-instar larvae in wheat. The materials tested included 4-Blend (2-phenyl ethyl alcohol, 2-phenyl ethyl propionate, benzyl alcohol, and  $\alpha$ -terpineol), benzyl alcohol, ADL 1-19 (4-blend 10%, eugenol 1.7%,  $\alpha$ -terpineol 1.7%, cinnamic alcohol 1.7%), ADL 1-22 (4-blend 10%, eugenol 2.5%, thymol 3%, cis-jasmone 0.6%), ADL 1-28 (2-phenyl ethyl propionate 3.75%, thymol 3.0%, eugenol 2.5%, PD98059 0.03%), and EcoPCO D (4-blend + eugenol). To determine the contact toxicity against stored insect pests, each of the test oils was formulated into a dust and then applied to a container in which the stored product and insect pests were present. The dusts were applied at different percentages relative to the stored products, and insect mortality was observed at 48 hours. The results are shown below.---

#### IN THE CLAIMS

1. [CANCEL]
2. [CANCEL]
3. [CANCEL]
4. [CANCEL]
5. [CANCEL]
6. [CANCEL]
7. (Amended) A method for controlling beetles in stored products, the method comprising applying to the locus where control is desired a pesticidally-effective amount of [the]a composition [of claim 1] comprising, in admixture with an acceptable carrier, at least one plant essential oil compound or derivative thereof.

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8. The method of Claim 7 wherein, the plant essential oil compound or derivative thereof comprises a monocyclic, carbocyclic ring structure having six-members and substituted by at least one oxygenated or hydroxyl functional moiety.

9. The method of Claim 7 wherein, the plant essential oil compound or derivative thereof is selected from the group consisting of aldehyde C16 (pure),  $\alpha$ -terpineol, amyl cinnamic aldehyde, amyl salicylate, anisic aldehyde, benzyl alcohol, benzyl acetate, cinnamaldehyde, cinnamic alcohol, carvacrol, carveol, citral, citronellal, citronellol, p-cymene, diethyl phthalate, dimethyl salicylate, dipropylene glycol, eucalyptol (cineole), eugenol, iso-eugenol, galaxolide, geraniol, guaiacol, ionone, menthol, methyl anthranilate, methyl ionone, methyl salicylate,  $\alpha$ -phellandrene, pennyroyal oil perillaldehyde, 1- or 2-phenyl ethyl alcohol, 1- or 2-phenyl ethyl propionate, piperonal, piperonyl acetate, piperonyl alcohol, D-pulegone, terpinen-4-ol, terpinyl acetate, 4-tert butylcyclohexyl acetate, thyme oil, thymol, metabolites of trans-anethole, vanillin, and ethyl vanillin.

10. A method for controlling maize weevil comprising, applying to the locus where control is desired a pesticidally-effective amount of 2-phenyl ethyl alcohol, 2-phenyl ethyl propionate, benzyl alcohol, and  $\alpha$ -terpineol, in admixture with an acceptable carrier.

11. A method for controlling maize weevil comprising, applying to the locus where control is desired a pesticidally-effective amount of benzyl alcohol, in admixture with an acceptable carrier.

12. A method for controlling maize weevil comprising, applying to the locus where control is desired a pesticidally-effective amount of 2-phenyl ethyl alcohol, in admixture with an acceptable carrier.

13. A method for controlling maize weevil comprising, applying to the locus where control is desired a pesticidally-effective amount of 2-phenyl ethyl propionate, in admixture with an acceptable carrier.

14. A method for controlling maize weevil comprising, applying to the locus where control is desired a pesticidally-effective amount of trans-anethole, in admixture with an acceptable carrier.

15. A method for controlling maize weevil comprising, applying to the locus where control is desired a pesticidally-effective amount of eugenol, in admixture with an acceptable carrier.

16. A method for controlling maize weevil comprising, applying to the locus where control is desired a pesticidally-effective amount of thymol, trans-anethole, eugenol,  $\alpha$ -terpineol and citronellal, in admixture with an acceptable carrier.

17. A method for controlling maize weevil comprising, applying to the locus where control is desired a pesticidally-effective amount of  $\alpha$ -terpineol, in admixture with an acceptable carrier.

18. A method for controlling maize weevil comprising, applying to the locus where control is desired a pesticidally-effective amount of thymol, in admixture with an acceptable carrier.

19. A method for controlling maize weevil comprising, applying to the locus where control is desired a pesticidally-effective amount of eugenol,  $\alpha$ -terpineol and cinnamic alcohol, in admixture with an acceptable carrier.

20. A method for controlling maize weevil comprising, applying to the locus where control is desired a pesticidally-effective amount of 4-Blend (2-phenyl ethyl alcohol, 2-phenyl

ethyl propionate, benzyl alcohol, and  $\alpha$ -terpineol) 10%, eugenol 1.7%,  $\alpha$ -terpineol 1.7%, and cinnamic alcohol 1.7%, in admixture with an acceptable carrier.

21. A method for controlling maize weevil comprising, applying to the locus where control is desired a pesticidally-effective amount of 4-blend (2-phenyl ethyl alcohol, 2-phenyl ethyl propionate, benzyl alcohol, and  $\alpha$ -terpineol) 10%, eugenol 2.5%, thymol 3%, and cis-jasmone 0.6%, in admixture with an acceptable carrier.

22. A method for controlling maize weevil comprising, applying to the locus where control is desired a pesticidally-effective amount of 2-phenyl ethyl propionate 3.75%, thymol 3.0%, eugenol 2.5%, and PD98059 0.03%, in admixture with an acceptable carrier.

23. A method for controlling maize weevil comprising, applying to the locus where control is desired a pesticidally-effective amount of 2-phenyl ethyl alcohol, 2-phenyl ethyl propionate, benzyl alcohol,  $\alpha$ -terpineol and eugenol, in admixture with an acceptable carrier.

24. A method for controlling sawtoothed grain adults comprising, applying to the locus where control is desired a pesticidally-effective amount of 2-phenyl ethyl alcohol, 2-phenyl ethyl propionate, benzyl alcohol, and  $\alpha$ -terpineol, in admixture with an acceptable carrier.

25. A method for controlling sawtoothed grain adults comprising, applying to the locus where control is desired a pesticidally-effective amount of benzyl alcohol, in admixture with an acceptable carrier.

26. A method for controlling sawtoothed grain adults comprising, applying to the locus where control is desired a pesticidally-effective amount of 4-Blend (2-phenyl ethyl alcohol, 2-phenyl ethyl propionate, benzyl alcohol, and  $\alpha$ -terpineol)10%, eugenol 1.7%,  $\alpha$ -terpineol 1.7%, and cinnamic alcohol 1.7%, in admixture with an acceptable carrier.

27. A method for controlling sawtoothed grain adults comprising, applying to the locus where control is desired a pesticidally-effective amount of 4-blend (2-phenyl ethyl alcohol, 2-phenyl ethyl propionate, benzyl alcohol, and  $\alpha$ -terpineol) 10%, eugenol 2.5%, thymol 3%, and cis-jasmone 0.6%, in admixture with an acceptable carrier.

28. A method for controlling sawtoothed grain adults comprising, applying to the locus where control is desired a pesticidally-effective amount of 2-phenyl ethyl propionate 3.75%, thymol 3.0%, eugenol 2.5%, and PD98059 0.03%, in admixture with an acceptable carrier.

29. A method for controlling sawtoothed grain adults comprising, applying to the locus where control is desired a pesticidally-effective amount of 2-phenyl ethyl alcohol, 2-phenyl ethyl propionate, benzyl alcohol,  $\alpha$ -terpineol and eugenol, in admixture with an acceptable carrier.

30. A method for controlling red flour beetle adults comprising, applying to the locus where control is desired a pesticidally-effective amount of 2-phenyl ethyl alcohol, 2-phenyl ethyl propionate, benzyl alcohol, and  $\alpha$ -terpineol, in admixture with an acceptable carrier.

31. A method for controlling red flour beetle adults comprising, applying to the locus where control is desired a pesticidally-effective amount of benzyl alcohol, in admixture with an acceptable carrier.

32. A method for controlling red flour beetle adults comprising, applying to the locus where control is desired a pesticidally-effective amount of 4-Blend (2-phenyl ethyl alcohol, 2-phenyl ethyl propionate, benzyl alcohol, and  $\alpha$ -terpineol) 10%, eugenol 1.7%,  $\alpha$ -terpineol 1.7%, and cinnamic alcohol 1.7%, in admixture with an acceptable carrier.



33. A method for controlling red flour beetle adults comprising, applying to the locus where control is desired a pesticidally-effective amount of 4-blend (2-phenyl ethyl alcohol, 2-phenyl ethyl propionate, benzyl alcohol, and  $\alpha$ -terpineol) 10%, eugenol 2.5%, thymol 3%, and cis-jasmone 0.6%, in admixture with an acceptable carrier.

34. A method for controlling red flour beetle adults comprising, applying to the locus where control is desired a pesticidally-effective amount of 2-phenyl ethyl propionate 3.75%, thymol 3.0%, eugenol 2.5%, and PD98059 0.03%, in admixture with an acceptable carrier.

35. A method for controlling red flour beetle adults comprising, applying to the locus where control is desired a pesticidally-effective amount of 2-phenyl ethyl alcohol, 2-phenyl ethyl propionate, benzyl alcohol,  $\alpha$ -terpineol and eugenol, in admixture with an acceptable carrier.

36. A method for controlling drugstore beetle larvae comprising, applying to the locus where control is desired a pesticidally-effective amount of 2-phenyl ethyl alcohol, 2-phenyl ethyl propionate, benzyl alcohol, and  $\alpha$ -terpineol, in admixture with an acceptable carrier.

37. A method for controlling drugstore beetle larvae comprising, applying to the locus where control is desired a pesticidally-effective amount of benzyl alcohol, in admixture with an acceptable carrier.

38. A method for controlling drugstore beetle larvae comprising, applying to the locus where control is desired a pesticidally-effective amount of 4-Blend (2-phenyl ethyl alcohol, 2-phenyl ethyl propionate, benzyl alcohol, and  $\alpha$ -terpineol) 10%, eugenol 1.7%,  $\alpha$ -terpineol 1.7%, and cinnamic alcohol 1.7%, in admixture with an acceptable carrier.

39. A method for controlling drugstore beetle larvae comprising, applying to the locus where control is desired a pesticidally-effective amount of 4-blend (2-phenyl ethyl alcohol, 2-

phenyl ethyl propionate, benzyl alcohol, and  $\alpha$ -terpineol) 10%, eugenol 2.5%, thymol 3%, and cis-jasmone 0.6%, in admixture with an acceptable carrier.

40. A method for controlling drugstore beetle larvae comprising, applying to the locus where control is desired a pesticidally-effective amount of 2-phenyl ethyl alcohol, 2-phenyl ethyl propionate, benzyl alcohol,  $\alpha$ -terpineol and eugenol, in admixture with an acceptable carrier.